140579

Proposed Plan for the Record of Decision amendment
Summit National Site
June 30, 1988 Record of Decision

INTRODUCTION

The purpose of this document is to announce that a Consent Decree, signed by the United States, the State of Ohio and the parties responsible for the contamination at the Summit National Superfund Site, has been lodged with the United States District Court for the Northern District Court of Ohio. The Consent Decree sets forth the remedial action which will be undertaken to clean up the Summit National site (the "site") in Deerfield, Ohio.

The execution of this Consent Decree marks the culmination of many years of efforts by the Ohio Environmental Protection Agency (Ohio) and the United States Environmental Protection Agency (EPA) to clean up the site. This document provides a brief background of the site, describes the remedial action to be undertaken and explains the ways in which this remedial action differs from that selected by EPA in the Record of Decision (ROD) signed on June 30, 1988.

Under Section 117 of the Comprehensive Environmental Response Compensation and Liability Act of 1980 as amended by the Superfund Amendments and Reauthorization Act of 1986, EPA is required to publish a proposed plan for a ROD amendment of the 1988 ROD. This plan explains the differences between the Consent Decree and the 1988 ROD. EPA will hold a public meeting and solicit public comments with respect to the proposed remedial action. Under Department of Justice regulations, notice of this Consent Decree will be published in the Federal Register and public comments regarding the decree will also be received. At the close of the public comment period, the comments will be evaluated to ensure that the proposed remedial action is appropriate and consistent with the law. A Record of Decision

(ROD) amendment will then be completed and signed by the U.S. EPA Regional Administrator. The United States and Ohio will then request the Court to sign the Consent Decree, at which time it will become effective.

SITE HISTORY AND BACKGROUND

The Summit National site, a former liquid waste disposal facility, is located on an abandoned coal strip mine at the intersection of Ohio Route 225 and U.S. Route 224 in Deerfield, Ohio; 20 miles west of Youngstown, and 45 miles southeast of Cleveland. The 11.5 acre fenced site contains two ponds, an inactive incinerator, and several vacant buildings. Immediately surrounding the site are several rural residences, two landfills, light industries and farmland.

From 1973 to 1978, Summit National accepted liquid wastes including oil, resins, sludge, pesticide wastes and plating wasted in drums and tank trucks. These wastes were stored, incinerated, buried or dumped at the site. In June of 1978, Ohio ordered Summit National to stop receiving waste and to remove all liquid waste stored at the site, and in 1979 filed a complaint against the operators for failing to comply with State regulations regarding the handling of solid and liquid wastes.

Ohio's sampling of on-site soils and surface water indicated the presence of hazardous substances potentially harmful to public health and the environment. In 1980, Ohio constructed a fence around the site, installed a drainage system to control surface water flow onto and off the site and six ground water monitoring wells. The same year, under authority granted in Section 311 of the Clean Water Act, EPA removed three liquid storage tanks and their contents and some

contaminated surface soils from the site. In 1981, an agreement between Ohio and eight of the Potentially responsible parties resulted in a $2.5 million surface cleanup which removed drums, tanks, surface debris and a small amount of contaminated soil from the site. In 1983, EPA placed the site on the National Priorities List, a federal roster of the nation's uncontrolled or abandoned hazardous waste sites eligible for cleanup under the Superfund program. From 1984 through 1987, EPA conducted a Remedial Investigation (a number of scientific studies conducted to determine the nature and extent of contamination problems) and a Feasibility Study to define and evaluate the alternatives for addressing the existing contamination identified during the Remedial Investigation. EPA also took some interim measures to control the migration of contaminants off-site and excavated an underground storage tank due to concern that hazardous substances contained in the tank might leak and contaminate the groundwater.

The Remedial Investigation confirmed the presence of contamination on-site in the groundwater, soils, pond sediments and surface water. In addition to on-site contamination, property outside the site perimeters was also found to be contaminated. A variety of organic and inorganic compounds was detected that could potentially threaten human health through direct contact with sediments and soils or ingestion of the groundwater. EPA developed nine alternatives for correcting and controlling the contamination and evaluated these alternatives against specific criteria to determine the best solution to the problem. The recommended alternative was presented to the general public in a fact sheet in February 1988, and further explained at a public meeting in Deerfield on February 29, 1988. Public comments on the proposed remedy as well as the Feasibility Study and all the alternatives presented were accepted by EPA at the meeting and in

writing through March 21, 1988 and at a public meeting. EPA then carefully evaluated those comments to determine if there were issues or concerns that would cause a change in the proposed remedial plan of action. In June 1988, EPA Region V Administrator, Valdas Adamkus, signed a Record of Decision specifying EPA's preferred alternative as the remedy to be implemented for the contamination problems at the Summit National site.

SUMMARY OF 1988 RECORD OF DECISION

The objective of the 1988 ROD was to reduce and control the threats and risks to public health and the environment posed by the contaminated soils, sediments, debris and groundwater at the site. The alternatives proposed to accomplish this goal were carefully evaluated and considered. The remedy selected included a plan to excavate and treat the highly contaminated soils and isolate the site area in order to prevent the contamination from migrating off-site.

The remedial action selected in the 1988 ROD consisted of the Following major components:

1) Constructing a chain-link fence around the site perimeter. Seeking deed restrictions from property owners to control future use of the site.
2) Excavating and incinerating (in an on-site facility) the following wastes:

Contaminated "Hot Spot" Soils	32,000c.y.
Contaminated Off-site Sediments	1,500 c.y.
Contents of Buried Drums	900-1600 drums

3) Dismantling and/or demolishing all on-site structures for on-site disposal.
4) Installing a soil-bentonite slurry wall around the site perimeter to

approximately a 40 foot depth to act as a vertical barrier which would prevent lateral migration to contaminants off-site.

5) Collecting and treating surface water from two on-site ponds and drainage ditches. Sediments would be excavated after ponds and ditches were dewatered.

6) Extracting groundwater for treatment from the various levels beneath the site by two basic components:

a) A system of 220 extraction wells installed on a 50-foot grid system over the site to remove contaminated water from the water table unit (the most highly contaminated level of the groundwater table closest to surface).

b) A system of 12 wells to extract the water from the intermediate unit (the less contaminated portion of the groundwater table beneath the water table unit).

All water extracted would be treated on-site, with treated waters to be discharged southeast of the site.

7) Relocating one vacant residence.

8) Creating an on-site landfill, built with an underlying double synthetic liner, to dispose of the residue from incinerated waste material.

9) Regrading site to original contours and installing a multi-layer cap over entire site. Cap would consist of a two-foot compacted clay layer covered by a high density polyethylene liner, synthetic drainage net, one foot of earth clean fill, and one foot of top soil.

10) Rerouting south and east drainage ditches to an uncontaminated area beyond the site.

11) The total present worth cost of the remedial action defined in the ROD was $25 million.

SUMMARY OF 1990 PROPOSED REMEDIAL ACTION UNDER CONSENT DECREE

The objectives of the 1990 proposed remedial action are the same as in the 1988 ROD: to reduce and control the threats and risks posed by site contamination. The primary goal, as in the 1988 ROD, is to implement a solution to a complex contamination problem that is protective of human health and the environment and provides a long-term, as well as short-term, solution in keeping with Ohio and EPA regulations. The major difference of the 1990 proposal from the 1988 ROD is that of long-term cleaning of contaminated media versus isolation. The most highly contaminated soils and sediments will be excavated and treated as in the ROD. The groundwater extraction, however, will be accomplished by a different technology that will result in a long-term cleaning, thus eliminating the need for isolation by means of a slurry wall and multi-layer cap.

For ease in comparison, the following list of elements is numbered in parallel to the listing under the 1988 ROD. (Table 1,page 15, gives an abbreviated side-by-side comparison of key elements.)

1) Expanding site boundaries to include contaminated areas along the perimeters and the south drainage ditch and constructing an 8-foot chain link fence around this expanded boundary.

2) Excavating and incinerating (in an on-site facility) soils and sediments as follow:

Contaminated soils on-site:	24,000 C.Y.
Contaminated perimeter sediments:	4,000 C.Y.
(including drainage ditches)	
Contents of buried drums	900-1600 drums

3) Dismantling and/or demolishing all on-site structures for on-site disposal.

4) No slurry wall would be constructed under this remedial action.

5) Collecting and treating surface water from two on-site ponds and drainage ditches. Sediments would be excavated after ponds and ditches are dewatered.

6) Extracting groundwater for treatment from the various levels of the water table on-site by two basic components:

   a) A pipe and media drain system along the south boundary and lower portions of the east and west boundaries rather than a system of wells to extract and treat contaminated groundwater table unit.

   b) Additional extraction wells installed in the intermediate unit to augment the pipe and media drain system.

   All water extracted will be treated by a system to be enclosed in an on-site building.

7) Relocating one vacant residence.

8) No on-site landfill would be created. Instead, ash from incinerated waste material would be tested to ensure it conforms with EPA and Ohio standards and used as fill to regrade the site before the final cover is placed over the surface.

9) Regrading site to original contours and installing a soil cover over approximately 10.6 acres of site. This cover will consist of an 18-inch layer of loam and 6 inches of topsoil with gas vents installed for treating and monitoring potential air emissions.

10) Rerouting south and east drainage ditches to uncontaminated area beyond the site.

11) The total cost of the remedial action defined in the 1990 proposal is $34.4 million.

Under terms of the Consent Decree the responsible parties named in the agreement will retain the contractors who will design and implement the remedial action. Before construction begins, EPA and Ohio EPA must review and approve all design drawing and specifications, health and safety, quality assurance, and operation and maintenance plans. EPA and Ohio EPA will oversee and monitor all activities of the remedial action and ongoing operation and maintenance to ensure compliance with all applicable requirements.

EXPLANATION OF SIGNIFICANT DIFFERENCES

The major differences between the 1988 ROD and 1990 proposed remedial action under the Consent Decree are as follows:

* Under the Consent Decree, the site perimeter has been extended to include some areas of contamination previously considered "off-site." The site fencing will be expanded to include these areas.

* The method and underlying rationale for extracting and treating the groundwater has changed significantly under the 1990 Consent Decree. The ROD called for a series of 220 extraction wells to be installed on a grid system on the site to extract contaminated groundwater. Under this method, it was also necessary to build a slurry wall to isolate the site and prohibit clean groundwater from migrating under the site and contaminated groundwater from migrating off-site. The slurry wall afforded the protection needed to reduce or eliminate off-site risks by isolating the contaminants in place.

  The new proposal calls for a system that utilizes pipes and drains to collect groundwater over an extended period of time in place of the extraction wells.

Under this system, the water that continues to slowly infiltrate site soils and sediments, dissolving contaminants from soil particles during this process, and will continually drain and be collected for treatment. Because the pipe and drain system collects from the southern and lower east and west perimeters, which is the natural course of the groundwater flow, contaminated water will be collected and treated and will not migrate off-site, thus eliminating the need for the slurry wall as a part of the remedy.

* Under the 1990 proposal, contaminated soils will be excavated to depths of two feet below the surface, whereas in the 1988 ROD, some areas were to be excavated to depths of 0-8 feet below the surface. This difference was proposed basically due to the change in the groundwater extraction method. The top two feet of surface soils are generally the most highly contaminated and pose the greatest threat to public health by contact and ingestion. These will be excavated and treated. The lower levels of contamination remaining in soils below 2 feet will be flushed by rain and snowfall infiltrating the site cover. These contaminants will then be extracted with the groundwater and treated. In the areas where buried drums will be excavated, soils will be excavated to greater depths as necessary.

* The on-site landfill may not be necessary under the 1990 Consent Decree. The resulting ash from incinerating the contaminated soils and sediments will be tested to ensure that it meets established standards and then used as backfill to regrade the site before placing the final site cover. The selected remedy assumes that the characterization of the ash will allow the State of Ohio to waive their solid waste regulation regarding the final deposition of the ash. The State of Ohio has agreed to consider such a waiver when the analysis of the ash is available. If the ash does not meet

the requirements, it will be retreated by the incineration process until it achieves acceptable levels for organic contaminants. If the ash does not meet the requirements because of inorganic contaminants it will need to be placed in a RCRA facility.

* The ROD calls for an impermeable cap over the site to prevent infiltration and isolate the contamination on-site. The Consent Decree implements a site cover that will allow infiltration. This controlled infiltration will supplement the removal of contaminants by the ongoing groundwater collection and treatment cycle.

COMPARATIVE ANALYSIS OF ALTERNATIVES

* The 1988 ROD screened alternatives based on their ability to protect human health and the environment; achieve State and Federal ARARs (applicable or relevant and appropriate requirements); reduction in toxicity, mobility, and volume; cost effectiveness; State and community acceptance. The remedy proposed in the Consent Decree was also screened using the same criteria.

OVERALL PROTECTION OF HUMAN HEALTH AND THE ENVIRONMENT

* The remedy in the Consent Decree would provide protection for human health and the environment. It would also eliminate the exposure routes to any residual contamination which would result in eliminating any residual risks associated with the site.

COMPLIANCE WITH APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

* The remedy in the Consent Decree would comply with all applicable or relevant

and appropriate Federal, and State laws.

LONG-TERM EFFECTIVENESS AND PERMANENCE

* The remedy in the Consent Decree would achieve a high degree of permanence through the incineration of soils which will destroy virtually all organic contamination. The residual soil will be tested for inorganic contamination and will be placed in a RCRA landfill on-site, if necessary.
* The soils which remain would be flushed by rainwater and all of the groundwater would be collected by the interceptor trenches and extraction wells. The water extracted would be treated by an on-site treatment plant to required contaminant levels before being released to surface waters. This system will be in place as long as required to effect a cleanup of the groundwater to levels specified in the Consent Decree.

REDUCTION OF TOXICITY, MOBILITY OR VOLUME

* The remedy in the Consent Decree will satisfy the statutory preference for treatment as a principal element. Both the incineration of the soils and the groundwater collection and treatment systems will provide a large reduction in the toxicity and mobility of the contaminated soil and groundwater.

SHORT-TERM EFFECTIVENESS

* This alternative could result in short-term effects during excavation, materials handling, incineration and groundwater treatment. With on and off site monitoring of air emissions and an effective safety plan for site work, no adverse impacts to workers, the community or the environment will occur.

IMPLEMENTABILITY

* This remedy utilizes proven technologies for extraction and treatment of soil and groundwater. Equipment and expertise to implement these processes are readily available. It is in this area that the remedy in the Consent Decree is substantially better than the 1988 ROD remedy. While the technologies chosen in the 1988 ROD are proven technologies, they are not commonly employed in the combination required by the ROD. Specifically the installation of an impermeable cap would not usually be combined with the installation of numerous extraction wells through this cap. The remedy in the Consent Decree would avoid the potential problems caused by this combination for technologies which could limit the effectiveness of the remedy.

COST

* The remedy in the Consent Decree is a cost-effective remedy for this site. Under the Consent Decree this remedy would be implemented by the PRPs. The estimated cost is $34.4 million.

STATE ACCEPTANCE

* The State of Ohio has indicated that they concur with the remedy in the Consent Decree and will be a signatory to the Consent Decree.

COMMUNITY ACCEPTANCE

* EPA will accept public comments on the ROD amendment and Consent Decree during the comment period and at the public meeting. Following the comment period on the ROD amendment, a Responsiveness Summary will be prepared which addresses the comments received.

PUBLIC COMMENT

* Members of the community are encouraged to attend a public meeting on August 1, 1990 at Deerfield American Legion Hall, Ohio Route 14, Deerfield, Ohio for information regarding the proposed remedial action and the Consent Decree for the Summit National site. Comments on the proposed remedy and Consent Decree will be accepted for a 30-day period. A transcript of those comments will be entered into the site repository at the Deerfield post office.

*A copy of the Consent Decree and Proposed remedial action plan are available for review at the

[1] U.S. Post Office
1365 Ohio Route 14
Deerfield, Ohio 44411
216/584-5901

Hours: 7:30 a.m. to 4:30 p.m.
Monday through Friday

[1] This is also the location of the Administrative Record for the site, which contains the complete information EPA will use to make the final decision for the Summit National remedial action.

Your comments on the proposed plan should be directed to:

Cheryl L. Allen, Community Relations Coordinator
U.S. EPA, Region 5 - Office of Public Affairs
230 South Dearborn
Chicago, Il 60604
800-621-8431

Technical questions should be directed to:

Anthony J. Rutter, Remedial Project Manager
U.S. EPA, Region 5 - Office of Superfund
230 S. Dearborn (5HS-11)
Chicago, IL 60604
312-886-8961

TABLE ONE

SUMMIT NATIONAL, OHIO

Original ROD (signed)	Revised ROD
Access/Deed Restrictions	Same
Razing On-Site Structures and Disposal	Same
Removal and Incineration of Drum and Tank Contents	Same
Eliminate On-Site Surface Waters	Same
Regrade the Site	Same
Water Treatment Plant to Treat Groundwater and Ponded Surface Water	Same
Characterized and Close the Tipple Well	Same
Long Term Operation and Maintenance for Remedial Actions	Same
Remediation of Off-Site Sediments	Same
Relocate Residence	Same
Remediation of Off-Site Soils by Cover	Remediation by Incineration
Remediation of On-Site Soils 32,000 cu yds	Remediation of 24,000 cu yds.
Disposal of Incineration Ash in On-Site RCRA Landfill	Disposal as fill on-site if non-hazardous waste. If hazardous waste in on-site RCRA landfill.
Impermeable Cover	Permeable Cover
Install Extraction Wells	Install collection trench in upper aquifer and extraction wells in lower aquifer.
Install Slurry Wall	No slurry wall.
Extend Site Boundaries	Do not extend site boundaries but remove contaminated soil for on site treatment.